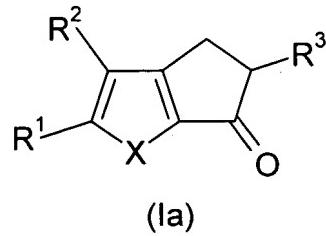
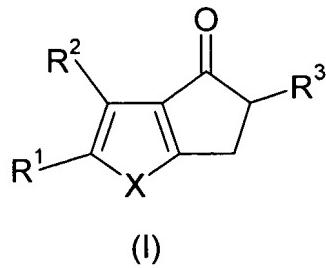


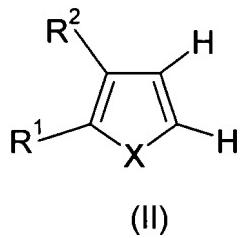


**ATTACHMENT A**

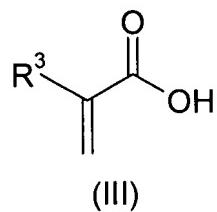
1. (Currently Amended) A process for preparing heterocyclic ketones of the formulae (I) or (Ia)



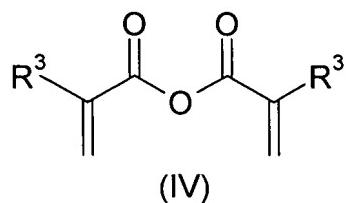
by reacting a heterocyclic compound of the formula (II)



with an  $\alpha,\beta$ -unsaturated carboxylic acid of the formula (III)



or with its anhydride of the formula (IV)



which comprises performing the reaction in a liquid reaction medium which comprises at least one strong organic acid and at least one water absorbent, where the strong organic acid has a higher acid strength than the carboxylic acid of the formula (III) by adding simultaneously the heterocyclic compound of the formula (II) together with the  $\alpha,\beta$  -unsaturated carboxylic acid of the formula (III) or together with its anhydride of the formula (IV) to said liquid reaction medium, and wherein the reaction is carried out in the temperature range from ~~50 to 110°C~~  
60 to 90°C, and

where

- R<sup>1</sup> is hydrogen or a C<sub>4</sub>-C<sub>40</sub> carbon containing group a C<sub>1</sub>-C<sub>40</sub>-alkyl radical, a C<sub>1</sub>-C<sub>10</sub>-fluoroalkyl radical, a C<sub>1</sub>-C<sub>12</sub>-alkoxy radical, a C<sub>6</sub>-C<sub>40</sub>-aryl radical, a C<sub>2</sub>-C<sub>40</sub> heteroaromatic radical, a C<sub>6</sub>-C<sub>10</sub>-fluoroaryl radical, a C<sub>6</sub>-C<sub>10</sub>-aryloxy radical, a C<sub>3</sub>-C<sub>18</sub>-trialkylsilyl radical, a C<sub>2</sub>-C<sub>20</sub>-alkenyl radical, a C<sub>2</sub>-C<sub>20</sub>-alkynyl radical, a C<sub>7</sub>-C<sub>40</sub>-arylalkyl radical or a C<sub>8</sub>-C<sub>40</sub>-arylalkenyl radical,
- R<sup>2</sup> is hydrogen or a C<sub>4</sub>-C<sub>40</sub> carbon containing group a C<sub>1</sub>-C<sub>40</sub>-alkyl radical, a C<sub>1</sub>-C<sub>10</sub>-fluoroalkyl radical, a C<sub>1</sub>-C<sub>12</sub>-alkoxy radical, a C<sub>6</sub>-C<sub>40</sub>-aryl radical, a C<sub>2</sub>-C<sub>40</sub> heteroaromatic radical, a C<sub>6</sub>-C<sub>10</sub>-fluoroaryl radical, a C<sub>6</sub>-C<sub>10</sub>-aryloxy radical, a C<sub>3</sub>-C<sub>18</sub>-trialkylsilyl radical, a C<sub>2</sub>-C<sub>20</sub>-alkenyl radical, a C<sub>2</sub>-C<sub>20</sub>-alkynyl radical, a C<sub>7</sub>-C<sub>40</sub>-arylalkyl radical or a C<sub>8</sub>-C<sub>40</sub>-arylalkenyl radical, or
- R<sup>1</sup> and R<sup>2</sup> together form a cyclic ring system,
- R<sup>3</sup> is a C<sub>4</sub>-C<sub>40</sub> carbon containing group a C<sub>1</sub>-C<sub>40</sub>-alkyl radical, a C<sub>1</sub>-C<sub>10</sub>-fluoroalkyl radical, a C<sub>6</sub>-C<sub>40</sub>-aryl radical, a C<sub>2</sub>-C<sub>40</sub> heteroaromatic radical, a C<sub>6</sub>-C<sub>10</sub>-fluoroaryl radical, a C<sub>7</sub>-C<sub>40</sub>-arylalkyl radical or a C<sub>3</sub>-C<sub>18</sub>-trialkylsilyl radical, and

- X is an element of the 16th group of the Periodic Table or is a divalent nitrogen group -(N-R<sup>4</sup>)-, where R<sup>4</sup> is an electron-withdrawing radical which is selected from the group consisting of perhalogenated C<sub>1</sub>-C<sub>40</sub> carbon-containing radicals and C<sub>1</sub>-C<sub>40</sub> organosulfonyl groups.
2. (Original) A process as claimed in claim 1, wherein X is sulfur.
3. (Previously Presented) A process as claimed in claim 1, wherein the strong organic acid is a C<sub>1</sub>-C<sub>8</sub>-alkylsulfonic acid.
4. (Previously Presented) A process as claimed in claim 1, wherein the water absorbent is phosphorus pentoxide.
5. (Previously Presented) A process as claimed in claim 1, wherein at least 50% by weight of the liquid reaction medium is a mixture of methanesulfonic acid and phosphorus pentoxide.
6. (Previously Presented) A process as claimed in claim 1, wherein the molar ratio of the heterocyclic compound of the formula (II) to the α,β-unsaturated carboxylic acid of the formula (III) is in the range from 5 : 1 to 1 : 100.
7. (Previously Presented) A process as claimed in claim 1, wherein the mass ratio of the heterocyclic compound of the formula (II) to the liquid reaction medium is in the range from 1 : 2 to 1 : 1000.
8. (Previously Presented) A process as claimed in claim 1, wherein the mass ratio of the water absorbent to the strong organic acid is in the range from 1 : 99 to 25 : 75.
9. (Cancelled)
- 10 (Previously Presented) A process as claimed in claim 2, wherein the strong organic acid is a C<sub>1</sub>-C<sub>8</sub>-alkylsulfonic acid.

11. (Previously Presented) A process as claimed in claim 10, wherein the water absorbent is phosphorus pentoxide.
12. (Previously Presented) A process as claimed in claim 11, wherein at least 50% by weight of the liquid reaction medium is a mixture of methanesulfonic acid and phosphorus pentoxide.
13. (Previously Presented) A process as claimed in claim 12, wherein the molar ratio of the heterocyclic compound of the formula (II) to the  $\alpha,\beta$ -unsaturated carboxylic acid of the formula (III) is in the range from 5 : 1 to 1 : 100.
14. (Previously Presented) A process as claimed in claim 13, wherein the mass ratio of the heterocyclic compound of the formula (II) to the liquid reaction medium is in the range from 1 : 2 to 1 : 1000.
15. (Previously Presented) A process as claimed in claim 14, wherein the mass ratio of the water absorbent to the strong organic acid is in the range from 1 : 99 to 25 : 75.